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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/798,824
Filing Date: March 10, 2004
Appellant(s): ISLAM ET AL.

Kenneth Q. Lao
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 04/01/2010 appealing from the Office action mailed 10/30/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims pending: 3-6, 10, 11, 15-17, 19-35, 40, 41, 43, 44, 49, 50 and 53-58.

Claims rejected: 3-6, 10, 11, 15-17, 19-35, 40, 41, 43, 44, 49, 50 and 53-58.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office

action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,104,441	WEE ET AL.	8-2000
US 2002/0135608	HAMADA ET AL.	9-2002
5,477,397	NAIMPALLY	12-1995
6,618,491	ABE	9-2003
US 2003/0005329	IKONEN	1-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 16-17, 19-22, 26-32, and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee et al. (US Patent 6,104,441 – hereinafter Wee) and Hamada et al. (US 2002/0135608 – hereinafter Hamada).

Regarding claim 3, Wee discloses a method, comprising: determining, among a plurality of input video frames in a bitstream, at least one video frame for video editing to achieve a video effect (*column 11, lines 9-32*), wherein the input video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic (*column 11, lines 9-32; column 12, line 36 - column 13, line 20*), and wherein the input video frames comprise one or more preceding video frames preceding said at least one video frame (*column 11, lines 9-32; column 8, lines 10-20*); identifying the frame characteristic of said at least one input video frame (*column 7, lines 50-53; column 11, lines 9-32*); modifying the bitstream in the compressed domain based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic (*column 12, line 36 – column 13, line 20*), and wherein if the frame characteristic of said at least one video frame is the second characteristic, decoding one of said at least one video frame for providing a decoded video frame and appending said decoded video frame to another image sequence achieve the video effect (*column 11, lines 9-32*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect ([0115]-[0117]; [0142]-[0144] – wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the method disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

Regarding claim 16, Wee discloses an apparatus (*column 3, lines 36-38*), comprising: a frame analyzer module, responsive to signals indicative of a plurality of input video frames in a bitstream, adapted for determining at least one video frame for video editing to achieve a video effect (*column 11, lines 9-32*), wherein the input video frames comprise frame characteristics, the frame characteristics comprise a first characteristic and a second characteristic (*column 11, lines 9-32; column 12, line 36 - column 13, line 20*), and wherein the input video frames comprise one or more preceding video frames preceding said at least one input video frame (*column 11, lines 9-32; column 8, lines 10-20*), said frame analyzer module further adapted for identifying the frame characteristic of said at least one video frame (*column 7, lines 50-53; column 11, lines 9-32*); and a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying the video frame data based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one

video frame is the first characteristic (*column 12, line 36 – column 13, line 20*); and a decoding module, adapted for decoding one of said at least one video frame for providing a decoded video frame so as to append said decoded video frame to another image sequence achieve the video effect, if the frame characteristic of said at least one video frame is a second characteristic (*column 11, lines 9-3*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect ([0115]-[0117]; [0142]-[0144] – *wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the apparatus disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

Regarding claim 17, Hamada also discloses a spatial domain processing module for changing video frame data in the decoded video frame ([0115]-[0117]; [0142]-[0144] – *wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

Regarding claim 19, Wee also discloses a format composer module for converting the edited frame data into an edited media file (*column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 20, Wee also discloses the format composer module comprises a file format composer (*Fig. 9; column 16, lines 1-46*).

Regarding claim 21, Wee also discloses the format composer module comprises a media format composer (*Fig. 9; column 16, lines 1-46*).

Regarding claim 22, Wee also discloses the frame analyzer module is further adapted for identifying format information indicative of editing properties of the modified video data so as to convert the modified video data into the edited media file compatible to a media player (*column 7, lines 50-53; column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 26, Wee discloses an apparatus, comprising: a media encoder for encoding media data for providing encoded media data in a plurality of encoded video frames (*column 10, lines 12-19*), wherein the encoded video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic (*column 11, lines 9-32; column 12, line 36 – column 13, line 20; column 7, lines 50-53*); a media editing device, responsive to the encoded video frames, for providing edited data including one or more edited frames, the edited frames having at least one editing effect specified by one or more editing parameters (*column 11, lines 9-32*), and a media decoder, responsive to the edited data, for providing decoded media data, wherein the media editing device comprises: a video editor module, responsive to signals indicative of encoded video frames, adapted for determining at least one video frame for video editing (*column 11, lines 9-32*), and wherein the encoded video frames comprise one or more preceding video frames

preceding said at least one video frame (*column 11, lines 9-32*), said video editor module further adapted for identifying the frame characteristic of said at least one video frame (*column 7, lines 50-53; column 11, lines 9-32*); a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying the encoded frame data based on specified editing parameters for providing the edited data if the frame characteristic of said at least one video frame is the first characteristic (*column 12, line 36 – column 13, line 20*); and a further module, adapted for decoding one of said at least one video frame for providing a decoded video frame if the frame characteristic of said at least one video frame is the second characteristic, so as to append to video frame for achieve the video effect (*column 11, lines 9-32*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect (*[0115]-[0117]; [0142]-[0144] – wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the apparatus disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

Regarding claim 27, Wee also discloses the media encoder has a connectivity mechanism and the media editing device has a further connectivity mechanism for allowing the media editing device to communicate with the media encoder in order to receive therefrom encoded media data in a wireless fashion (*Fig. 3; column 6, lines 52-58*).

Regarding claim 28, Wee also discloses the media decoder has a connectivity mechanism and the media editing device has a further connectivity mechanism for allowing the media editing device to provide the edited data to the media decoder in a wireless fashion (*Fig. 3; column 6, lines 52-58*).

Regarding claim 29, Wee also discloses the media encoder and the media editing device are integrated in an expanded encoding module (*Fig. 9; column 15, line 52 – column 16, line 7*).

Regarding claim 30, Wee also discloses the media decoder has a connectivity mechanism and the expanded encoding module has a further connectivity mechanism for allowing the expanded encoding module to provide the edited data to the media decoder in a wireless fashion (*Fig. 3; Fig. 9; column 6, lines 52-58*).

Regarding claim 31, Wee also discloses the media decoder and the media editing device are integrated in an expanded decoding module (*Fig. 3; Fig. 9; column 15, line 52 – column 16, line 7*).

Regarding claim 32, Wee also discloses the media encoder has a connectivity mechanism and the expanded decoding module has a further connectivity mechanism

for allowing the media encoder to provide the edited data to the expanded decoding module in a wireless fashion (*Fig. 3; Fig. 9; column 6, lines 52-58*).

Regarding claim 53, Wee also discloses the video effect comprises a scene-transition effect (*column 11, lines 9-32*), said method further comprising: decoding at least one of said preceding video frames if the frame characteristic of said at least one video frame is the second characteristic (*column 11, lines 9-32*); and transforming the decoded video frame into an intra frame after said changing (*column 11, lines 9-32*).

Regarding claim 54, see the teachings of Wee and Hamada as discussed in claim 3 above. However, Wee and Hamada do not disclose the video effect comprises a color-change effect.

Video effects comprising color-change effect are well known in the art.

It is Official Notice taken that one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate a color-change effect on a selected decoded video frame into the apparatus disclosed by Wee and Hamada to allow users to edit the video frame color according their color preferences.

Regarding claim 55, Wee and Hamada also disclose wherein the spatial domain processing module comprises a special effect processor (*Hamada: [0115]-[0117]; [0142]-[0144]*) and a transition effect processor (*Wee: column 11, lines 9-32*), and the video effect comprises a scene-transition effect (*Wee: column 11, lines 9-32*), wherein if the video effect is a scene-transition effect, said transition effect processor is adapted for changing the decoded video frame and the decoding module is further adapted for decoding said at least one of said preceding video frames so as to transform the

decoded video frame into an intra frame after said changing for achieving the scene-transition effect (*Wee: column 11, lines 9-32; Wee et al. II, Fig. 29; column 29, line 57 – column 30, line 31*).

However, Wee and Hamada do not disclose a color-change effect and wherein if the video effect is a color-change effect, said special effect processor is adapted for changing the decoded video frame for achieving the color-change effect.

Video effects comprising color-change effect on a decoded video frame are well known in the art.

It is Official Notice taken that one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate a color-change effect on a selected decoded video frame into the apparatus disclosed by Wee and Hamada to allow users to edit the video frame color according their color preferences.

Claim 56 is rejected for the same reason as discussed in claim 55 above.

Claims 4-6, 10-11, 15, 35, 40-41, 43-44, 49-50, 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee and Hamada as applied to claims 3, 16-17, 19-22, 26-32, and 53-56 above, and further in view of Naimpally (US Patent 5,477,397 – hereinafter Naimpally).

Regarding claim 4, see the teachings of Wee and Hamada as discussed in claim 3 above. Further, Wee also discloses the video data are coded with MPEG format (*column 6, lines 15-24*) and are coded with variable-length code (*column 7, lines 28-37; column 17, lines 11-13*), and said method further comprising: converting the MPEG encoded video data into a decoded format prior to said modification (*column 11, lines*

19-30). However, Wee and Hamada do not disclose said method further comprising: converting the variable length code coded video data into a binary form prior to said modifying.

Naimpally discloses a MPEG decoding process that converts the VLC coded video data into a binary form (*column 5, lines 5-10*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the converting the variable length code coded video data into a binary form disclosed by Naimpally into the decoding process used in the method disclosed by Wee and Hamada to make it compatible with MPEG standard, which is an existing standard.

Regarding claim 5, Naimpally also discloses processing the variable length code coded video data in an inverse cosine transform operation (*column 5, lines 10-15*).

Regarding claim 6, Wee also discloses modifying one or more further input video frames in the bitstream in a further domain different from the compressed domain based on the frame characteristics of said at least one further video frame for providing a further modified bitstream (*column 11, lines 19-30*).

Regarding claim 10, Wee also discloses the modified bitstream comprises edited frame data (*column 16, lines 41-45*); and said method further comprising converting the edited frame data into an edited media file (*column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 11, Wee et al. also disclose the edited frame data is converted based on format information indicative of editing properties of the edited frame data (column 7, lines 50-53; column 6, lines 52-58; Fig. 9; column 16, lines 1-46).

Regarding claim 15, Wee also discloses said modifying is also based on the editing parameters according to a user's chosen editing reference (*column 3, lines 51-57; column 6, lines 37-40*).

Regarding claim 35, Wee discloses an apparatus configured for editing media files in a bitstream, the bitstream comprising a video bitstream, wherein the video bitstream comprises a plurality of input video frames having video frame data (*Fig. 3; column 3, line 34 – column 4, line 3*), comprising: a video editing application module for specifying an editing effect on the input video frames (*column 3, line 49—column 4, line 3*), the input video frames comprising at least one video frame for video editing and a plurality of preceding video frames preceding said at least one video frame (*column 11, lines 9-32*), wherein the input video frames comprise frame characteristics, the frame characteristics comprising a first characteristic and a second characteristic (*column 7, lines 50-53*); a video editing device comprising: an editor module adapted for identifying the frame characteristic of said at least one video frame (*column 7, lines 50-53*); and a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying at least part of the video frame data based on frame and specified editing effects for providing modified video data if the frame characteristic is the first characteristic (*column 12, line 36 – column 13, line 20*); and a further module, adapted for decoding one said at least one video frame

for providing a decoded video frame if the frame characteristic of said at least one video frame is the second characteristic , so as to append the decoded video frame for achieving the editing effect (*column 11, lines 9-32*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect and the bitstream to comprise an audio bitstream.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect ([0115]-[0117]; [0142]-[0144] – *wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the method disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

However, Wee and Hamada do not disclose the bitstream to comprise an audio bitstream.

Naimpally et al. disclose the bitstream to comprise an audio bitstream (*column 7, lines 21-24*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the audio bitstream disclosed by Naimpally into the bitstream disclosed by Wee and Hamada in order to add sounds to the video. The incorporated feature would make movie watching more lively.

Regarding claim 40, Wee also discloses a display screen for display video images based on modified video data (*Fig. 3; column 6, lines 40-58*).

Regarding claim 41, Wee also discloses a mobile terminal (*column 6, lines 52-58; Fig. 3*).

Claim 43 is rejected for the same reason as discussed in claim 3 above.

Claim 44 is rejected for the same reason as discussed in claim 6 above.

Claim 49 is rejected for the same reason as discussed in claim 3 above.

Claim 50 is rejected for the same reason as discussed in claim 10 above.

Claim 57 is rejected for the same reason as discussed in claim 55 above.

Claim 58 is rejected for the same reason as discussed in claim 55 above.

Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee and Hamada as applied to claims 3, 16-17, 19-22, 26-32, and 53-56 above, and further in view of Abe (US Patent 6,618,491).

Regarding claim 23, see the teachings of Wee and Hamada as discussed in claim 16 above. However, Wee and Hamada do not disclose the bitstream also comprises audio data, said device further comprising: a format parser module, for separating the audio from the video frame data in the input video frames, and an audio processing module for modifying the audio data for providing modified audio data, if so desired.

Abe discloses the bitstream comprises video and audio data (*column 3, lines 32-35*), said device further comprising: a format parser module, for separating the audio from the video frame data in the input video frames (*column 3, lines 32-35*), and an

audio processing module adapted for modifying the audio data for providing modified audio data, if so desired (*column 4, lines 37-44*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the bitstream comprising both video data and audio data, the format parser module, and the audio processing module disclosed by Abe into the method disclosed by Wee and Hamada so that to make the video data having audio associated with it. Video having audio is more entertaining to watch. Besides, it is also more informative.

Regarding claim 24, Abe also discloses a combination module for combining the modified video data and the modified audio data for providing combined signals indicative of combined data (*column 4, lines 44-51, 58-64; column 5, lines 1-4, 10-18; column 7, lines 5-16*).

Regarding claim 25, Wee also discloses a format composer, responsive to the combined signals, for converting the combined data into an edited media file for use in a media player (*column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee and Hamada as applied to claims 3, 16-22, 26-32, and 51-52 above, and further in view of Ikonen (US 2003/0005329).

Regarding claim 33, see the teachings of Wee and Hamada as discussed in claim 30 above. However, Wee and Hamada do not disclose each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module.

Ikonen discloses a bluetooth connectivity mechanism (*claim 9*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the bluetooth connectivity mechanism disclosed by Ikonen into the media coding system disclosed by Wee and Hamada to have each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module because bluetooth connections have lower power consumption.

Regarding claim 34, see the teachings of Wee and Hamada as discussed in claim 30 above. However, Wee and Hamada do not disclose each of the connectivity mechanism and the further connectivity mechanism comprises an infrared connectivity module.

Ikonen discloses an infrared connectivity module (*[0019]; [0020]*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the infrared connectivity module disclosed by Ikonen into the media coding system disclosed by Wee and Hamada to have each of the connectivity mechanism and the further connectivity mechanism comprises an infrared connectivity module to provide the system with capability of being controlled by remote controllers.

(10) Response to Argument

A) Examiner has no comments on Sub-section A contained in the brief.

B) Examiner also has no comments on Sub-section B contained in the brief.

C) Following is Examiner's response to Appellant's arguments described in Sub-section C in the brief.

On page 12, Appellant argues that, "Hamada does not disclose that the picture selected to be the thumbnail picture is decoded."

In response, Examiner respectfully disagrees. In [0142]-[0144], Hamada discloses the thumbnail is generated is based on either (1) a scene displayed during playback or pause operation or (2) from outside. In case the thumbnail is generated based on a scene image displayed during playback or pause operation of the AV stream, such a scene image must have been decoded first since originally it is encoded using MPEG standards (see Hamada, [0097]). In [0144], the step of compressing the image data to generate an encoded thumbnail is applied to images captured from outside (case (2) as described above). Even if this step is also applied to the thumbnail data generated based on case (1) above, it is then evident that such an image for generating the thumbnail is in a decoded state because it does not make sense to encode an image that has been already encoded.

Also, at least in [0134], Hamada also discloses the thumbnail format must be an I-picture, which is an intra-coded picture. This is so because the thumbnail picture must be independently decoded for display since it does not have any other reference frames

associated with it and stored with it. As such, it is impossible that an encoded picture is converted to intra-encoded picture without being in decoded state first.

Therefore, Examiner respectfully submits that the picture data that is used to generate thumbnail data are decoded before the thumbnail data as described in Hamada reference can be formed.

Also on page 12, Appellant argues that the thumbnails as disclosed by Hamada are used for marking the recorded picture data on the recording medium so as to allow the user to select the recorded data and not used to achieve a video effect of the recorded picture data.

In response, Examiner respectfully disagrees. First of all, playback of the picture stream without marking and resuming is different from playback of the picture stream with marking and resuming features in terms of visual effects. In other words, the thumbnail data are modified into a mark form that when, coming to display, giving viewers a visually different presentation, e.g. in form of a graphical user interface, where viewers can make selections to interrupt the original playback sequence for a different playback sequence.

D) Following is Examiner's response to Appellant's arguments described in Sub-section D contained in the brief.

On page 12, Applicant argues that, "[a]s pointed out in Sub-section C above, Hamada fails to disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect."

Examiner respectfully submits that this argument is moot in view of the discussion of Hamada set forth in Examiner's response to Sub-section C contained in the brief above.

On pages 12-13, Appellant argues that, "Wee does not disclose that if the frame characteristic is the second characteristic, said at least one video frame is decoded 'or providing only one decoded video frame so that this one decoded frame is changed to achieve the video effect."

In response, Examiner respectfully submits that this argument is moot since Wee is not relied upon to disclose the feature.

Appellant's arguments described in Sub-sections E, F, and G contained in the brief are therefore not persuasive.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Hung Q Dang/

Examiner, Art Unit 2621

Conferees:

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621

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/Mehrdad Dastouri/

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